

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-20. (Canceled)

21. (New) A method for forming an image of an eye, the method comprising:
emitting optical radiation towards the eye via at least one exit aperture of a hand held camera unit, the optical radiation being directed along an optical axis of the exit aperture only at a first portion of a pupil; and

forming an electronic image of a second portion of the pupil at which no optical radiation is directed, the image being formed by means of optical radiation received from the eye via an entrance aperture of the camera unit,

wherein emitting and receiving the optical radiation occurs through separate exit and entrance apertures having different optical axes.

22. (New) The method as claimed in claim 21, wherein the optical axes of the exit aperture and the entrance aperture are parallel and unidirectional.

23. (New) The method as claimed in claim 21, wherein the camera unit comprises a nose part which, while forming an image of the eye, is brought close to the eye of which an image is to be formed, the nose part comprising at least one exit aperture and entrance aperture.

24. (New) The method as claimed in claim 21, wherein the optical radiation is infrared radiation and visible light radiation, and is emitted such that a radiation pattern of the infrared radiation is directed at the pupil of the eye symmetrically with respect to a radiation pattern of the visible light radiation.

25. (New) The method as claimed in claim 21, the method further comprising focusing the optical radiation onto a surface of the eye.

26. (New) The method as claimed in claim 21, wherein the camera unit and a power source unit are interconnected by a cable, and electric power is fed from the power source unit to the camera unit through the cable.

27. (New) The method as claimed in claim 21, the method further comprising: transferring images produced by the camera unit to a data processing device; performing, in the data processing device, image processing operations on the images produced by the camera unit; and displaying the images produced by the camera unit visually.

28. (New) A system for forming an image of an eye, the system comprising: at least one optical radiation source for illuminating the eye, and a hand held camera unit for forming an electronic image of the eye illuminated by at least one optical radiation source, wherein the camera unit comprises

at least one exit aperture via which the radiation of the optical radiation source is emitted toward the eye, the optical radiation being directed along an optical axis of the exit aperture only at a first portion of the pupil; and

at least one entrance aperture via which optical radiation is received from the eye to form the electronic image of a second portion of the pupil at which no optical radiation is directed,

wherein the exit aperture and the entrance aperture are separate apertures having different optical axes.

29. (New) The system as claimed in claim 28, wherein the optical axes of the exit apertures and the entrance apertures are parallel and unidirectional.

30. (New) The system as claimed in claim 28, wherein the camera unit comprises a nose part which, while forming an image of the eye, is brought close to the eye of which an

image is to be formed, the nose part comprising at least one exit aperture and entrance aperture.

31. (New) The system as claimed in claim 28, wherein the system comprises an infrared radiation source and a visible light radiation source, and the camera unit is arranged to illuminate the eye such that a radiation pattern of infrared radiation is directed at the pupil of the eye symmetrically with respect to a radiation pattern of visible light.

32. (New) The system as claimed in claim 28, wherein the camera unit is arranged to focus the optical radiation onto the surface of the eye.

33. (New) The system as claimed in claim 28, wherein the system further comprises a power source unit and a cable to interconnect the camera unit and the power source unit, and the power source unit is arranged to feed electric power to the camera unit through the cable.

34. (New) The system as claimed in claim 28, wherein the system further comprises:

a data processing device to which the camera unit is arranged to transfer images it has produced; and

an image processing device that is arranged to perform image processing operations on the images of the camera unit, and to display the images visually.